

Contents of

Applied Physics A 60

Materials Science & Processing

This listing presents the papers in alphabetical order of the first author. The Author Index that follows covers Volume 60 of **Applied Physics A** and **B**, and is presented in tabular form. The names are listed in alphabetical order in the first column. The second and third columns contain the bibliographic data necessary to locate the paper. The issue is specified by the number separated from the volume number by a slash. The PACS numbers given in the fourth column may be used in conjunction with the PACS listing on the left to infer the topic of a paper. The articles the pages of which are characterized by S in the Author Index have been published in the supplement of Volume 60/2&3.

Abdallah M.H., Ramaden Y., Jawad S.A., Hassan M., Ahmad M.S., Zihli A.M.: Effect of annealing on the electrical properties and refractive index of HgI_2 single crystals. *Appl. Phys. A* 60/5, 437-440 (1995) PACS: 72.20 78.20

Abdelghany A.: Electrical conductivity and thermoelectric power of $AgInSe_2$ in the solid and liquid states. *Appl. Phys. A* 60/1, 77-79 (1995) PACS: 72.20

Aussenegg F.R., Leitner A., Gold H.: Optical second-harmonic generation on metal-island films. *Appl. Phys. A* 60/2, 97-101 (1995) PACS: 78.65E 42.65

Bala P., Bala W.: Tunneling in double-barrier $ZnSe/ZnTe$ structures: Time-dependent analysis. *Appl. Phys. A* 60/3, 293-297 (1995) PACS: 03.65 73.40 73.60

Barcz A.J., Baranowski J.M., Kwiatkowski S.: General behaviour of the In/GaAs couple under prolonged sintering. *Appl. Phys. A* 60/3, 321-324 (1995) PACS: 73.40N

Böhmer K., Hohlfeld J., Matthias E.: SHG studies of magnetization effects on polycrystalline nickel surfaces. *Appl. Phys. A* 60/2, 203-208 (1995) PACS: 42.65K 75.30

Bor Z., Racz B., Szabo G., Xenakis D., Kalpouzos C., Fotakis C.: Femtosecond transient reflection from polymer surfaces during femtosecond UV photoablation. *Appl. Phys. A* 60/4, 365-368 (1995) PACS: 42.80 52.50

Braun W., Ploog K.: In-situ monitoring of interface formation using the phase shift of reflection high-energy electron diffraction intensity oscillations. *Appl. Phys. A* 60/5, 441-446 (1995) PACS: 68.35F 61.14 64.75

Brendel R.: Note on the interpretation of injection-level-dependent surface recombination velocities. *Appl. Phys. A* 60/5, 523-524 (1995) PACS: 73.40

Brozel M.R.: Analysis of semi-insulating GaAs and the role of positron annihilation. *Appl. Phys. A* 60/6, 537-540 (1995) PACS: 71.55E 78.70 73.61

Brune H., Röder H., Romainczyk Ch., Boragno C., Kern K.: Aggregation of fractal and dendritic Ag clusters on a Pt (111) surface. *Appl. Phys. A* 60/2, 167-171 (1995) PACS: 68.70 61.43 68.55

Brusa R.S., Duarte Nairi M., Margoni D., Zecca A.: Positron mobility in polyethylene in the 60-400 K temperature range. *Appl. Phys. A* 60/5, 447-453 (1995) PACS: 78.70B 36.10 61.41

Buck M., Eisert F., Grunze M., Träger F.: Second-order nonlinear susceptibilities of surfaces. A systematic study of the wavelength and coverage dependence of thiol adsorption on polycrystalline gold. *Appl. Phys. A* 60/1, 1-12 (1995) PACS: 73.60 82.65 42.65

Bürgel A., Kleemann W., Biebricher M., Franke H.: High-transparency films for nonlinear integrated optics based on P(VDF-TrFE) and poly(α -methyl styrene) host materials. *Appl. Phys. A* 60/5, 475-480 (1995) PACS: 42.65K 42.70 42.82 77.84

Cheah K.W., Ho L.C., Xia J.B., Li J., Zheng W.H., Zhuang W.R., Wang Q.M.: Luminescence centers in porous silicon. *Appl. Phys. A* 60/6, 601-606 (1995) PACS: 82.40T 81.40

Costela A., Figuera J.M., Florido F., García-Moreno I., Collar E.P., Sastre R.: Ablation of poly(methyl methacrylate) and poly(2-hydroxyethyl methacrylate) by 308, 222 and 193 nm excimer-laser radiation. *Appl. Phys. A* 60/3, 261-270 (1995) PACS: 42.55G 61.80 81.40

Domen K., Yamamoto H., Watanabe N., Wada A., Hirose C.: Sum-frequency generation and temperature-programmed desorption studies of formic acid on $MgO(001)$ surfaces. *Appl. Phys. A* 60/2, 131-135 (1995) PACS: 42.65

Drossel B., Schwabl F.: Self-organized critical limit of autocatalytic surface reactions. *Appl. Phys. A* 60/6, 597-600 (1995) PACS: 82.65J 05.70

Du H., Fang J.W., Zheng J.J.: Photoacoustic phase spectrum of a layered sample. *Appl. Phys. A* 60/4, 419-423 (1995) PACS: 78.20H 82.80 87.50

Eisert F., Elg A.P., Rosén A.: Adsorption of oxygen and hydrogen on Pt(111) studied with second-harmonic generation. *Appl. Phys. A* 60/2, 209-215 (1995) PACS: 68.35 82.20 42.65

El-Ocker M.M., El-Fouly M.H., Fayek S.A., Talaat H., Amin G.A.M.: Effect of In addition on some physical properties of the As_2Se_3 amorphous system. *Appl. Phys. A* 60/2, 233-238 (1995) PACS: 73.60 72.20 61.40

Elfalaky A.: Antimony thin-film transport properties and size effect. *Appl. Phys. A* 60/1, 87-91 (1995) PACS: 61.10 61.70 73.60

Elie E.R., Ham E.W.M. van der, Vrehen Q.H.F., 't Hoft G.W., Barmentlo M., Auerhammer J.M., Meer A.F.G. van der, Amersfoort P.W. van: Studies of interfacial regions by sum-frequency generation with a free-electron laser. *Appl. Phys. A* 60/2, 113-119 (1995) PACS: 41.60C 42.60 42.65

Fang Y., Vasil'ev A.N., Mikhailin V.V.: Theory on X-ray photoacoustic spectroscopy. *Appl. Phys. A* 60/3, 333-341 (1995) PACS: 78.70D 78.20

Finke E., Simon D.: On the presence of spatial pattern formation in a bistable dynamical system. *Appl. Phys. A* 60/5, 487-495 (1995) PACS: 01.90 61.80 64.90

Fiorentini V., Oppo S., Scheffler M.: Towards an understanding of surfactant action in the epitaxial growth of metals: The case of Sb on Ag(111). *Appl. Phys. A* 60/4, 399-402 (1995) PACS: 68.35

Foulon F., Green M.: Laser projection-patterned etching of (100) GaAs by gaseous HCl and CH_3Cl . *Appl. Phys. A* 60/4, 377-381 (1995) PACS: 31.60C 61.80 85.40

Frandas A., Jalink H., Turcu R., Brie M.: The impulse photopyroelectric method for thermal characterization of electrically conducting polymers. *Appl. Phys. A* 60/5, 455-458 (1995) PACS: 61.40 65.00

Fuchs C., Goetzberger O., Henck R., Fogarassy E.: Polymer photoablation under windowless VUV hydrogen or helium discharge lamp. *Appl. Phys. A* 60/5, 505-507 (1995) PACS: 61.80B 78.66 81.60

Gavrilenko V.I., Rebentrost F.: Nonlinear optical susceptibility of the (111) and (001) surfaces of silicon. *Appl. Phys. A* 60/2, 143-146 (1995) PACS: 42.65K 61.16

Giorgi M.L. De Leggiere G., Luches A., Martino M., Perrone A., Majni G., Mengucci P., Zemek J., Mihailescu I.N.: Laser-reactive deposition of silicon-nitride films. *Appl. Phys. A* 60/3, 275-283 (1995) PACS: 42.55G 68.55 81.15

Götz T., Buck M., Dressler C., Eisert F., Träger F.: Optical second-harmonic generation of supported metal clusters: Size and shape effects. *Appl. Phys. A* 60/6, 607-612 (1995) PACS: 42.65 68.55 36.40

Guo L., Zhang S.Y., Zhang X.R., He J., Zhang Z.N.: Influence of ion implantation on the thermal diffusivity of semiconductors. *Appl. Phys. A* 60/4, 395-398 (1995) PACS: 66.10C 61.70

Haba B., Morishige Y., Kishida S.: Laser through-hole drilling and laser cutting in teflon. *Appl. Phys. A* 60/1, 27-30 (1995) PACS: 42.55L 42.60 77.55 81.40

Hall P., Davies S.: On direction-invariance of fractal dimension on a surface. *Appl. Phys. A* **60**/3, 271-274 (1995) PACS: 68.35B 68.90

Henke S., Thürer K.H., Geier S., Rauschenbach B., Stritzker B.: X-ray pole-figure study of the epitaxial growth of C_{60} thin films on mica (001). *Appl. Phys. A* **60**/4, 383-389 (1995) PACS: 68.55 61.10 81.40

Henn F.E.G., Buchanan R.M., Jiang N., Stevenson D.A.: Permittivity and AC conductivity in yttria-stabilized zirconia. Application of a pairs-approximation model and determination of the binding energy of the oxygen vacancies. *Appl. Phys. A* **60**/5, 515-519 (1995) PACS: 66.30 77.00

Hohlfeld J., Grosenick D., Conrad U., Matthias E.: Femtosecond time-resolved reflection second-harmonic generation on polycrystalline copper. *Appl. Phys. A* **60**/2, 137-142 (1995) PACS: 42.65K 63.20 78.47

Holgado S., Martinez J., Garrido J., Piqueras J.: Regrowth-process study of amorphous BF_2^+ ion-implanted silicon layers through spectroscopic ellipsometry. *Appl. Phys. A* **60**/3, 325-332 (1995) PACS: 07.60 68.55 78.65

Holtz S., Bargon J.: Laser-induced ablation of polymers using a patterned dopant generated from a leuco-dye precursor via flood exposure: A "portable conformable mask" approach to laser ablation at 351 nm. *Appl. Phys. A* **60**/6, 529-536 (1995) PACS: 79.20 81.60

Holy V., Kubena J., Hoogenhof W.W. van den, Vavra I.: Effect of interfacial-roughness replication on the diffuse X-ray reflection from periodical multilayers. *Appl. Phys. A* **60**/1, 93-96 (1995) PACS: 61.10D 68.35 68.65

Horch S., Zeppenfeld P., Comsa G.: A scanning tunneling microscopy study of the adsorption of Xe on Pt (111) up to one monolayer. *Appl. Phys. A* **60**/2, 147-153 (1995) PACS: 68.55 61.16 34.00

Ihlemann J., Scholl A., Schmidt H., Wolff-Rottke B.: Nanosecond and femtosecond excimer-laser ablation of oxide ceramics. *Appl. Phys. A* **60**/4, 411-417 (1995) PACS: 42.20 42.60 81.60

Itoh Y., Lee K.H., Murakami H., Iwata R.: Defect study of proton-irradiated liquid-encapsulated Czochralski GaAs using the positron-annihilation technique. *Appl. Phys. A* **60**/1, 57-60 (1995) PACS: 78.70B 72.80

Jaime M., Nuñez Regueiro M.: Oxygen diffusion in C_{60} films. *Appl. Phys. A* **60**/3, 289-292 (1995) PACS: 66.30J 73.50 64.70

Jesus M.E.P. de, Imhof R.E.: Thermal diffusivity measurement of thermally conducting films on insulating substrates. *Appl. Phys. A* **60**/6, 613-617 (1995) PACS: 06.90 07.20 44.90

Jyunomji M., Sugioka K., Takai H., Tashiro H., Toyoda K.: Mechanism of silicon implant-deposition for surface modification of stainless steel 304 using KrF-excimer laser. *Appl. Phys. A* **60**/1, 41-47 (1995) PACS: 81.40

Kalinovskii A., Gusev V.: Theory of thermal wave interference induced by laser action on a normally cut layered structure. *Appl. Phys. A* **60**/6, 557-565 (1995) PACS: 65.00 68.65

Kampen T.U., Schmitzendorf R.F., Mönch W.: Silver Schottky contacts on Si(111)-H-(1×1) surfaces prepared by wet-chemical etching. *Appl. Phys. A* **60**/4, 391-394 (1995) PACS: 73.30 73.40

Kawahara H., Okamoto Y., Morimoto J., Miyakawa T.: Effect of electric field on deep centers in Si:V studied by spectral analysis of capacitance transients. *Appl. Phys. A* **60**/5, 467-474 (1995) PACS: 71.55 72.80

Kazukauskas V.: Photo-magneto-electric effect in semi-insulating GaAs: Carrier lifetimes and influence of the defect structure. *Appl. Phys. A* **60**/5, 509-514 (1995) PACS: 72.20 72.40 72.80

Kokai F., Kakudate Y., Togashi H., Koga Y., Fujiwara S.: $HeCl$ -laser-generated ablation products from a nitrogen-rich polymer studied by laser-ionization mass spectrometry. *Appl. Phys. A* **60**/1, 31-34 (1995) PACS: 81.15 82.80 42.62

Koopmans B., Janner A.M., Wierenga H.A., Rasing Th., Sawatzky G.A., Woude F. van der: Separation of interface and bulk contributions in second-harmonic generation from magnetic and non-magnetic multilayers. *Appl. Phys. A* **60**/2, 103-111 (1995) PACS: 42.65K 75.70 78.66

Koschnick F.K., Krambrock K., Hesse M., Spaeth J.-M.: Investigations of As-antisite-related defects in GaAs. *Appl. Phys. A* **60**/6, 551-555 (1995) PACS: 61.70 61.80

Landolt M., Briner B.: Exchange coupling in multilayers with semiconductors. *Appl. Phys. A* **60**/4, 403-409 (1995) PACS: 75.30E 75.70 73.40

Linden W. von der: Maximum-entropy data analysis. *Appl. Phys. A* **60**/2, 155-165 (1995) PACS: 52.70L 71.10 75.10

Ling C.C., Shan Y.Y., Panda B.K., Fleischer S., Beling C.D., Fung S.: Doppler-broadening measurements of microvoids at the Au/GaAs interface. *Appl. Phys. A* **60**/6, 545-549 (1995) PACS: 68.35 78.70

Luo E.Z., Wollschläger J., Wegner F., Henzler M.: SPA-LEED studies of growth of Ag on Ag(111) at low temperatures. *Appl. Phys. A* **60**/1, 19-25 (1995) PACS: 61.14H 68.35

Marowsky G., Loddoch M., Heinemann E., Kreuzer F.H., Legeber H., Takezoe H.: Probing liquid crystals nonlinearly. *Appl. Phys. A* **60**/2, 197-202 (1995) PACS: 42.65K 61.30

Meng X.T., Zecca A., Brus R.S.: Positron-trap centers in neutron-irradiated silicon containing hydrogen. *Appl. Phys. A* **60**/1, 81-85 (1995) PACS: 61.72 61.80 78.70

Meyer G., Neu B., Rieder K.-H.: Controlled lateral manipulation of single molecules with the scanning tunneling microscope. *Appl. Phys. A* **60**/3, 343-345 (1995) PACS: 68.35B

Mitura Z., Mazurek P., Paprocki K., Mikolajczak P.: Investigations of a new method to control thin-film growth. *Appl. Phys. A* **60**/2, 227-231 (1995) PACS: 61.14H 68.35 68.55

Nagel D., Frohne C., Sittig R.: Rapid thermal diffusion of aluminum in silicon and its interaction with phosphorus. *Appl. Phys. A* **60**/1, 61-65 (1995) PACS: 61.70 66.30

Osterwalder J., Aebi P., Schwaller P., Schlapbach L., Shimoda M., Mochiku T., Kadowaki K.: Angle-resolved photoemission experiments on $Bi_2Sr_2CaCu_2O_{8+\delta}$ (001): Effects of the incommensurate lattice modulation. *Appl. Phys. A* **60**/3, 247-254 (1995) PACS: 71.25H 74.72 79.60

Pettinger B., Mirwald S., Lipkowski J.: Microfacetting of Au(110) electrodes: An optical second-harmonic generation study. *Appl. Phys. A* **60**/2, 121-125 (1995) PACS: 42.65K

Pham V.P., Manivannan G., Lessard R.A., Bornengo G., Po R.: New azo-dye-doped polymer systems as dynamic holographic recording media. *Appl. Phys. A* **60**/3, 239-242 (1995) PACS: 42.40 42.70

Pietsch G.J.: Hydrogen on Si: Ubiquitous surface termination after wet-chemical processing. *Appl. Phys. A* **60**/4, 347-363 (1995) PACS: 61.16D 81.60 68.35

Polity A., Abgarjan Th., Krause-Rehberg R.: Defects in electron-irradiated GAP studied by positron lifetime spectroscopy. *Appl. Phys. A* **60**/6, 541-544 (1995) PACS: 61.70 61.80

Polyakov V., Elbe A., Schaefer J.A.: High-resolution electron energy-loss spectroscopy at epitaxially grown GaAs(100): A comparison between theory and experiment. *Appl. Phys. A* **60**/6, 567-572 (1995) PACS: 68.55 78.70

Poyer S., Stangl E.: Time-integrated photography of laser-induced plasma plumes. *Appl. Phys. A* **60**/6, 573-580 (1995) PACS: 52.70 74.75 07.68

Ramani R., Ramachandra P., Ravichandran T.S.G., Ramgopal G., Ranganathaiah C.: Microstructure of polycarbonate seen by positrons as an in-situ probe. *Appl. Phys. A* **60**/5, 481-486 (1995) PACS: 78.70B 71.60 61.41

Rebentrost F., Kuchler M.: Nonlinear electronic response and SHG from adsorbates on simple metal surfaces. *Appl. Phys. A* **60**/2, 127-130 (1995) PACS: 78.66B 42.65

Riesz F.: Optical gain in photoconductors made of compensated and partially com-

pensated GaAs.
 Appl. Phys. A 60/3, 299-302 (1995) PACS: 72.40 73.50 85.60

Salam F., Giuntini J.Ch., Soulyman S.Sh., Zanchetta J.V.:
 Electrical conductivity of $(\text{Ag}_2\text{S})_x\text{-}(\text{GeS}_2)_{1-x}$ glasses.
 Appl. Phys. A 60/3, 309-312 (1995) PACS: 66.10E

Schubert E.F., Downey S.W., Pinzone C., Emerson A.B.:
 Evidence of very strong inter-epitaxial-layer diffusion in Zn-doped GaInPAs/InP structures.
 Appl. Phys. A 60/6, 525-528 (1995) PACS: 66.30J 71.55 73.61

Schubnell M., Tschudi H.R.:
 Simultaneous measurement of irradiation, temperature and reflectivity on hot irradiated surfaces.
 Appl. Phys. A 60/6, 581-587 (1995) PACS: 82.40 78.65

Sedykh V., Smirnova I.S., Dubovitskii A.V., Narymbetov B.Zh., Shekhtman V.Sh., Suvorov E.V., Goncharov V.A., Novomilinskii L.A.:
 Study of the modulated structure of $\text{Bi}_2\text{Sr}_2\text{Ca}\text{Fe}_2\text{O}_x$.
 Appl. Phys. A 60/1, 71-75 (1995) PACS: 74.70V 76.80

Sedykh V., Strukova G.K., Dilanyan R.A., Smirnova I.S., Shevchenko S.A., Shekhtman V.Sh.:
 A study of the new compound $\text{YBa}_4\text{Fe}_3\text{O}_{11-y}$.
 Appl. Phys. A 60/3, 255-259 (1995) PACS: 74.70V 76.80

Selvam P., Cors J., Decroux M., Fischer ϕ :
 Surface and bulk properties of hot-pressed PbMo_6S_8 superconductor studied by Auger electron spectroscopy and calorimetry.
 Appl. Phys. A 60/5, 459-465 (1995) PACS: 74.60 74.70

Shen W.Z., Tang W.G., Li Z.Y., Shen S.C., Andersson T.:
 Exciton line broadening in strained InGaAs/GaAs single quantum wells.
 Appl. Phys. A 60/3, 243-245 (1995) PACS: 78.65 73.40

Shin K.S., Kim C.Y., Chung J.W.:
 Angle-resolved photoemission study of the Li-induced structures of the Si(001) surface.
 Appl. Phys. A 60/1, 35-40 (1995) PACS: 73.20 79.60

Spatenka P., Suh H., Erker G., Rump M.:
 Formation of hafnium carbide thin films by plasma enhanced chemical vapor deposition from bis(η -cyclopentadienyl)dimethylhafnium as a precursor.
 Appl. Phys. A 60/3, 285-288 (1995) PACS: 81.15G 52.90 68.55

Stampfli P., Bennemann K.H.:
 Theory for the laser-induced femtosecond phase transition of silicon and GaAs.
 Appl. Phys. A 60/2, 191-196 (1995) PACS: 61.80B 63.20 78.47

Starke K., Navas E., Arenholz E., Baumgarten L., Kaindl G.:
 Circular dichroism in 4f photoemission from magnetically ordered rare-earth materials.
 Appl. Phys. A 60/2, 179-189 (1995) PACS: 75.50C 78.20 79.60

Talledo A., Granqvist C.G.:
 Structural evolution during lithiation of sputtered V_2O_5 films.
 Appl. Phys. A 60/5, 521-522 (1995) PACS: 66.30 68.55 85.40

Tan C., Xia Y., Liu X., Liu J., Wang F.:
 Implanted-fluorine depth profiles in molybdenum.
 Appl. Phys. A 60/3, 313-316 (1995) PACS: 61.70W

Torres L., Zazo M., Iniguez J., Francisco C. de, Muñoz J.M.:
 Comparison between disaccommodation and ferromagnetic resonance measurements in polycrystalline nickel ferrites.
 Appl. Phys. A 60/3, 303-307 (1995) PACS: 76.50 75.60

Toth Z., Hopp B., Kántor Z., Ignácz F., Szörényi T., Bor Z.:
 Dynamics of excimer laser ablation of thin tungsten films monitored by ultrafast photography.
 Appl. Phys. A 60/5, 431-436 (1995) PACS: 42.60 78.90

Volk T., Wöhlecke M., Rubinina N., Razumovski N.V., Jermann F., Fischer C., Böwer R.:
 LiNbO_3 with the damage-resistant impurity indium.
 Appl. Phys. A 60/2, 217-225 (1995) PACS: 72.20 72.40 78.30

Wang S., Zhu Z.H.:
 Measurement and analysis of the electric field in semiconductor lasers by continuous-wave electro-optic probing.
 Appl. Phys. A 60/4, 425-429 (1995) PACS: 42.55P 42.60 85.30

Westin E., Rosén A.:
 Calculations of the dispersion of the third-order optical nonlinearity in C_{60} films.
 Appl. Phys. A 60/1, 49-55 (1995) PACS: 42.65A 36.40 31.20

Wolff-Rottke B., Ihlemann J., Schmidt H., Scholl A.:
 Influence of the laser-spot diameter on photo-ablation rates.
 Appl. Phys. A 60/1, 13-17 (1995) PACS: 81.40

Woll J., Meister G., Barjenbruch U., Goldmann A.:
 Oxygen chemisorption on Cu(110): A combined study by second-harmonic spectroscopy and photoemission.
 Appl. Phys. A 60/2, 173-178 (1995) PACS: 42.65 73.20 79.60

Würfel P., Finkbeiner S., Daub E.:
 Generalized Planck's radiation law for luminescence via indirect transitions.
 Appl. Phys. A 60/1, 67-70 (1995) PACS: 78.20 78.60

Wu X.L., Zhang M.S., Chen Q., Feng D.:
 E(transverse optical)-mode properties in the $\text{LiTaO}_3:\text{Nd}$ crystal at room temperature.
 Appl. Phys. A 60/3, 317-320 (1995) PACS: 78.30 63.20

Zaiser M., Frank W.:
 Dislocation dynamics in cyclic plastic deformation. I. Monotonic hardening.
 Appl. Phys. A 60/5, 497-503 (1995) PACS: 61.70G 62.20

Zaiser M., Frank W.:
 Dislocation dynamics in cyclic plastic deformation. II. Strain bursts.
 Appl. Phys. A 60/6, 589-595 (1995) PACS: 61.70G 62.20

Zhao X.D., Yamamoto H., Taniguchi K.:
 Theoretical study of resonant-tunneling and confining phenomena with mass variation in unsymmetrical rectangular double-barrier structures.
 Appl. Phys. A 60/4, 369-376 (1995) PACS: 73.20D 13.40